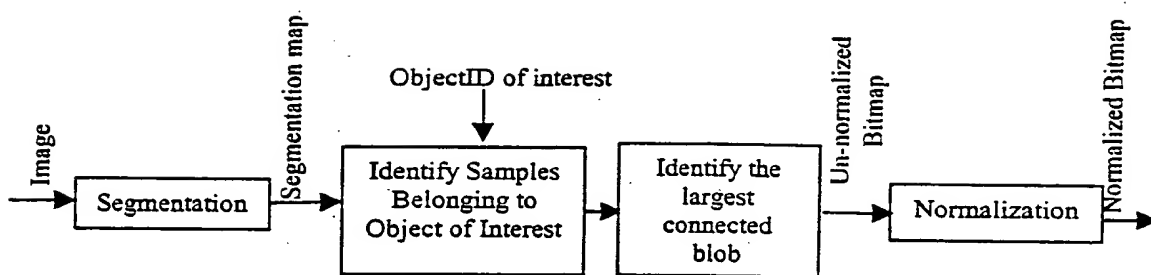
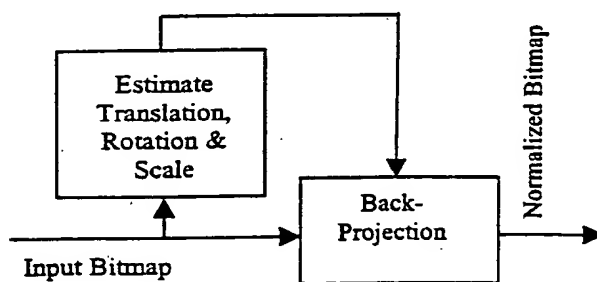




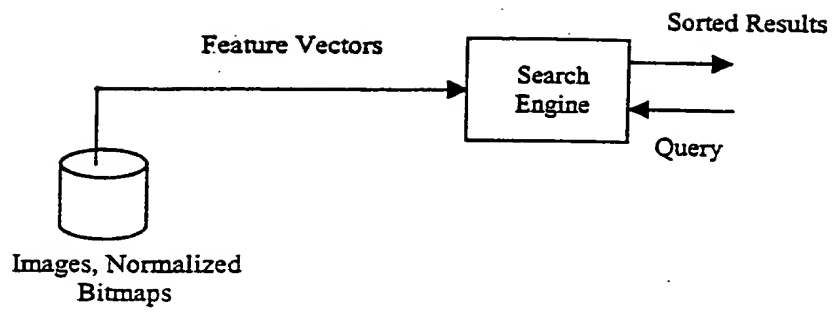
**Figure 4 Normalized Bitmap**



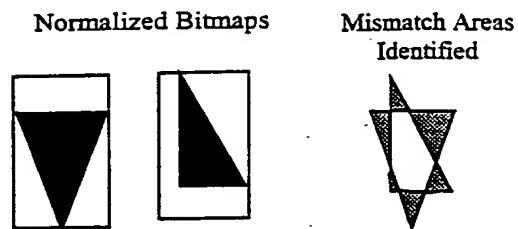
**Figure 5 Overall Normalized Bitmap Generation**



**Figure 6 Bitmap Normalization Process**



**Figure 7 Search Engine based on normalized bitmap representation of shape**



**Figure 8 Mismatch measure is the number of samples in the gray region**

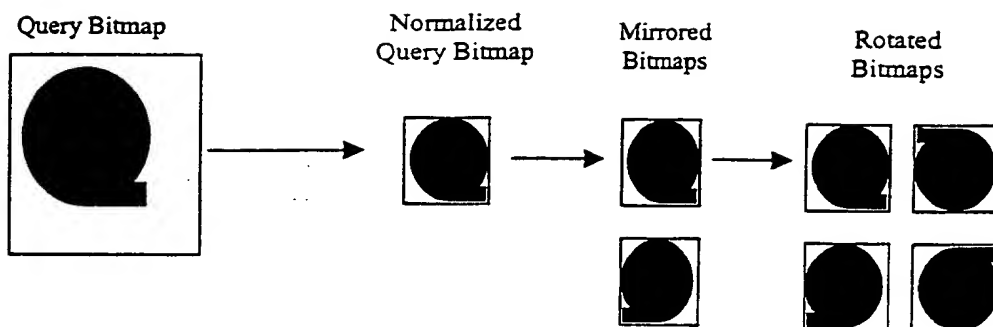


Figure 9 Generation of 4 versions of query shape

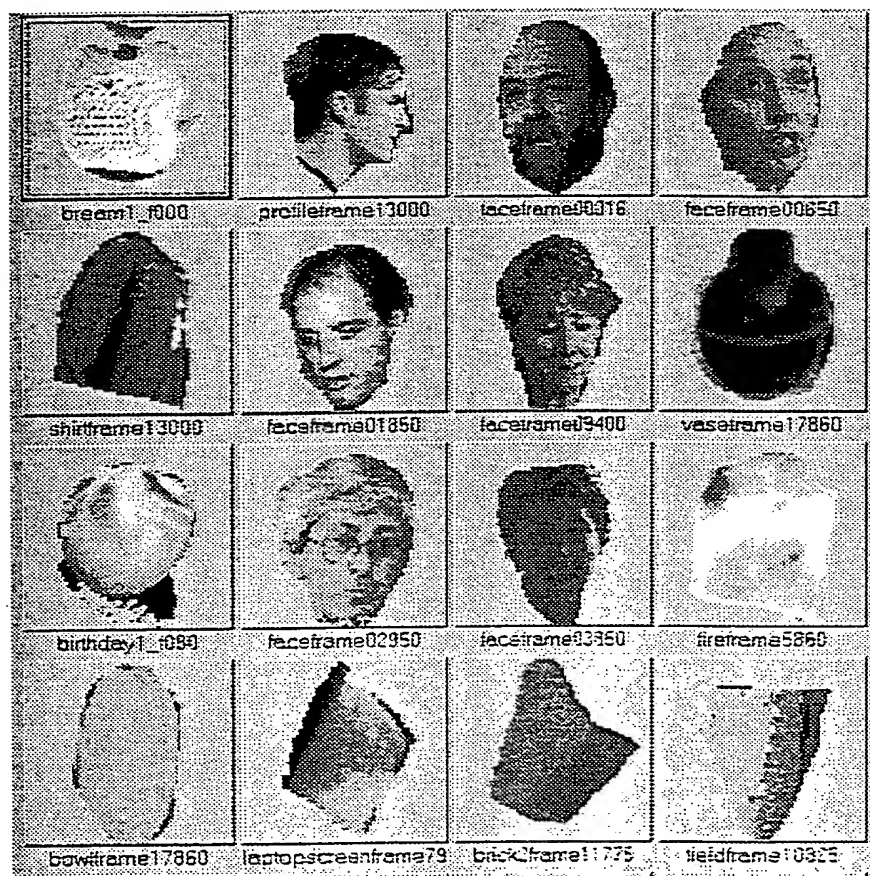


Figure 10 Query shape is the top-left bitmap. Rest are the results from a query for similar shapes.